

Motivational interviewing and outcomes in primary preventive cardiology

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Key words

lifestyle, motivation, prevention,
risk factors

First published online 30th
November 2021

doi: 10.5837/bjc.2021.047

Br J Cardiol 2021;28:125–6

The European guidelines on cardiovascular disease (CVD) prevention in clinical practice have focused on prevention through behaviour change by highlighting and promoting lifestyle therapies to better address the needs of individuals with a high-risk profile. Programmes using motivational interviewing are promising in encouraging lifestyle change. While motivational interviewing may support individuals to modify risk, its effectiveness remains uncertain. Here, we offer reflections on the application of motivational interviewing in preventive cardiology, areas of controversy, and glimpses of potential future lifestyle interventions using motivational interviewing to prevent CVD development.

What is motivational interviewing?

Motivational interviewing is a counselling approach that proposes collaborative communication between the clinician and the client, where the commitment towards behaviour change is strengthened.^{1–3} The European Society of Cardiology recommended using motivational interviewing and graded this counselling style as class 1 level A in supporting lifestyle risk modification.⁴

The practice of motivational interviewing involves using basic interaction skills and techniques such as open questions, affirmation, reflective listening and summary reflections (OARS).³ By asking open questions, the clinician invites the client to reflect and elaborate. Affirmation allows the clinician to identify the client's strengths and reflect on them to nourish their confidence in their ability to change. Reflective listening involves a demonstration of deep understanding from the clinician's end. This is when the clinician paraphrases the client's thoughts to obtain a greater understanding of the situation. At the end of the session, the clinician provides an overall summary of what was said. This skill also highlights that the clinician listened carefully to the



client, and there is proper understanding. Another essential skill comes in informing and advising. After consent is obtained from the client, informing and advising will occur if the client asks for information or advice.^{1,3} Motivational interviewing is an approach to support individuals who are ambivalent about changing risky behaviour. A central tenet is for the clinician to identify, evaluate and inspire individuals to change by strengthening their motivation and confidence to modify the risky behaviour. Motivational interviewing supports individuals to identify what needs to be changed and how to change it.

Does motivational interviewing work?

Motivational interviewing was criticised for not having a coherent theoretical base. Primarily, motivational interviewing is a clinical model.⁵ However, there seem to be several theoretical influences that may contribute to its development. Researchers have referred to the self-determination theory. The self-determination theory may clarify the understanding of motivational interviewing methods, their application, and how it can lead to change. To date, there seems to be a lack of evidence-based knowledge on how motivational interviewing methods can impact motivation towards a successful change. Vansteenkiste *et al.*⁶ pointed out that motivational interviewing needs to

become a theory rather than a clinical model.

Nevertheless, little has been done to move motivational interviewing from a clinical method to a more theoretical base. Motivational interviewing needs to clarify its theoretical uniqueness or similarities with other theories and highlight the active mechanism that leads to change.⁶ Otherwise, understanding clearly how motivational interviewing works and why it can be useful will remain uncertain. However, despite this uncertainty, motivational interviewing is reported to be effective in primary clinical settings, and one session of 15 to 20 minutes seems to be effective in changing behavioural outcomes, such as an increase in physical activity levels and fruit and vegetable intake, including an improvement in modifiable CVD risk factors.^{2,7,8}

A systematic literature review with meta-analyses on the impact of motivational interviewing on primary and secondary prevention of CVD risk factors showed that it could be more effective than usual care in changing smoking habits. Also, motivational interviewing positively impacted systolic and diastolic blood pressure. The review also showed that it might have favourable effects on improving psychological measures. However, results for other outcomes were inconclusive. The researchers suggested that further research is needed to help identify the ideal frequency and format of motivational interviewing. It was recommended that further research should be carried out to provide more concrete data on motivational interviewing's effectiveness in increasing the clients' motivation towards lifestyle modification.⁹

Is motivational interviewing worth doing?

Motivational interviewing outperforms traditional advice-giving.¹⁰ While motivational interviewing is challenging in clinics with a busy patient caseload, it is more effective when used in opportunistic encounters.² Benefits from motivational interviewing may also come in a duration and frequency response relationship. The greater the duration and frequency of motivational interviewing sessions, the greater the extent of the impact. A future research suggestion was directed towards further studies to determine whether motivational interviewing can be used with specific groups of at-risk individuals, maximising the impact that it could have.²

The application of motivational interviewing is dependent on the clinician's ability to use motivational interviewing skills.¹¹ If the clinician cannot recognise change talk or is unable to empathise with the client, this can diminish the effectiveness. Another issue that could diminish the effectiveness is applying the skill to a group of individuals simultaneously, as it would be difficult to reach a client-centred approach.^{3,12}

A systematic review and meta-analysis of randomised-controlled trials (RCTs) using motivational interviewing principles determined a synthesised estimate for the standardised mean difference in weight of -2.00 kg (95% confidence interval [CI] -3.31 to -0.69 kg; $p=0.003$), with high statistical heterogeneity, and a mean difference in low-density lipoprotein (LDL)-cholesterol of -5.414 mg/dL, which was non-significant.

Although the authors of the RCTs claim to

use an intervention applying motivational interviewing principles, few details could be identified from their reports about the motivational interviewing elements applied. Without access to further information, replication of their studies is severely limited. This is further complicated because clinicians in some studies¹³⁻¹⁵ may not have been trained in motivational interviewing methods. This considerably weakens the reliability of the study as bias is introduced due to indefinite motivational interviewing compliance. Furthermore, the multitude of intervention components used in conjunction with the motivational interviewing, such as educational material, created difficulty when identifying the active ingredients in interventions that produced significant changes.¹⁶

As such, programmes using motivational interviewing may be useful, and some intervention components might be more effective in supporting risk factor change than others. Furthermore, motivational interviewing elements seem to blend well with education. A blended combination of face-to-face sessions and telephone follow-up, delivered by a trained clinician, seems to be the most effective delivery method to support risk factor change. Suggestions for a preliminary study have been put forward.¹⁷ This study focuses on a potential risk group without pre-existing atherosclerotic CVD, using an approach that draws upon some, but not all, motivational interviewing principles and practices¹⁷ ●

Conflicts of interest

None declared.

Funding

University of Malta.

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